

Claims

1. A positive-electrode active material, comprising a base and one or more layers for coating onto said base, wherein at least one of said layers is a coating layer containing one or more kinds of metallic components and one or more components selected from the group consisting of sulfur, selenium, and tellurium.
2. The positive-electrode active material according to claim 1, characterized in that the coating layer contains more than two kinds of metallic components.
3. The positive-electrode active material according to claim 1 or 2, characterized in that the metallic component contained in the coating layer is one or more kinds of components selected from the group consisting of lithium, magnesium, aluminum, silicon, chromium, iron, zirconium, niobium, indium, tungsten, and cerium.
4. The positive-electrode active material according to any one of claims 1 to 3, characterized in that the base contains manganese component.
5. The positive-electrode active material according to any one of claims 1 to 4, characterized in that the base has a spinel structure.
6. The positive-electrode active material according to any one of claims 1 to 5, characterized in that the coating layer contains sulfur component.
7. A non-aqueous electrolyte secondary cell comprising the positive-electrode active material according to any one of claims 1 to 6.
8. A process for preparing a positive-electrode active material, comprising:

- dispersing a base into water;
 - using a raw material containing: one or more metallic components; and one or more components selected from the group consisting of sulfur, selenium, and tellurium, as the coating raw material;
 - 5 • adding said coating raw material into said dispersion liquid under the control of pH to form a coating layer by a precipitation method; and
 - filtering said dispersion liquid followed by drying the same after a coating layer is formed.
- 10 9. The process for preparing a positive-electrode active material according to claim 8, characterized in that a material containing manganese component is used as the base.
- 15 10. The process for preparing a positive-electrode active material according to claim 8 or 9, characterized in that a material having a spinel structure is used as the base.
- 20 11. The process for preparing a positive-electrode active material according to any one of claims 8 to 10, characterized in that a material containing one or more components selected from the group consisting of lithium, magnesium, aluminum, silicon, chromium, iron, zirconium, niobium, indium, tungsten, and cerium is used as the metallic component.
- 25 12. The process for preparing a positive-electrode active material according to any one of claims 8 to 11, characterized in that a material containing sulfur component is used as the coating raw material.
- 30 13. The process for preparing a positive-electrode active material according to any one of claims 8 to 12, characterized in that a raw material containing one or more metallic components is added simultaneously with or in

advance to the addition of the raw material containing one or more components selected from the group consisting of sulfur, selenium, and tellurium.

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